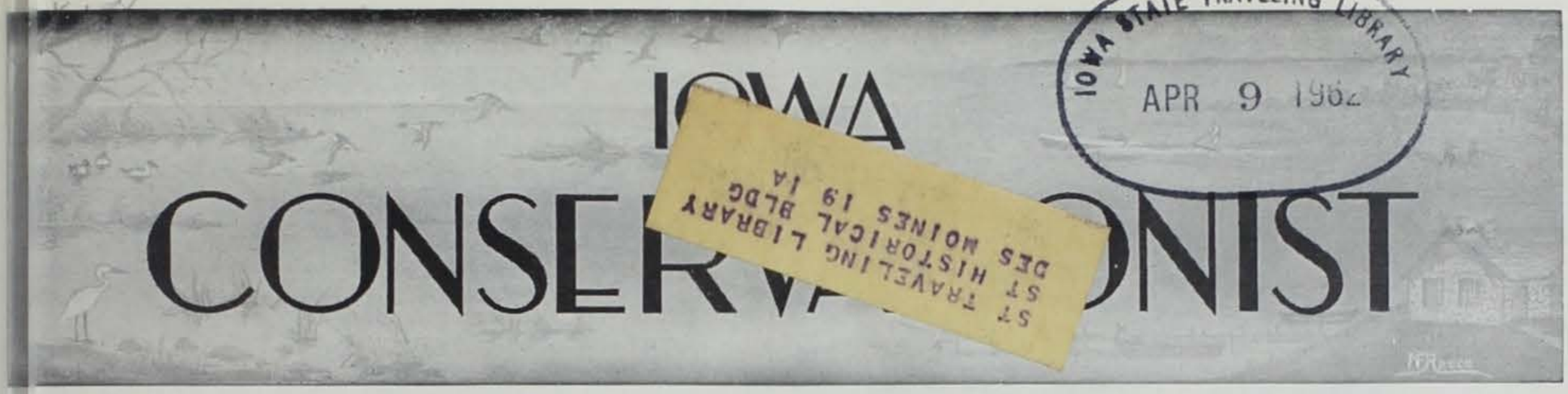
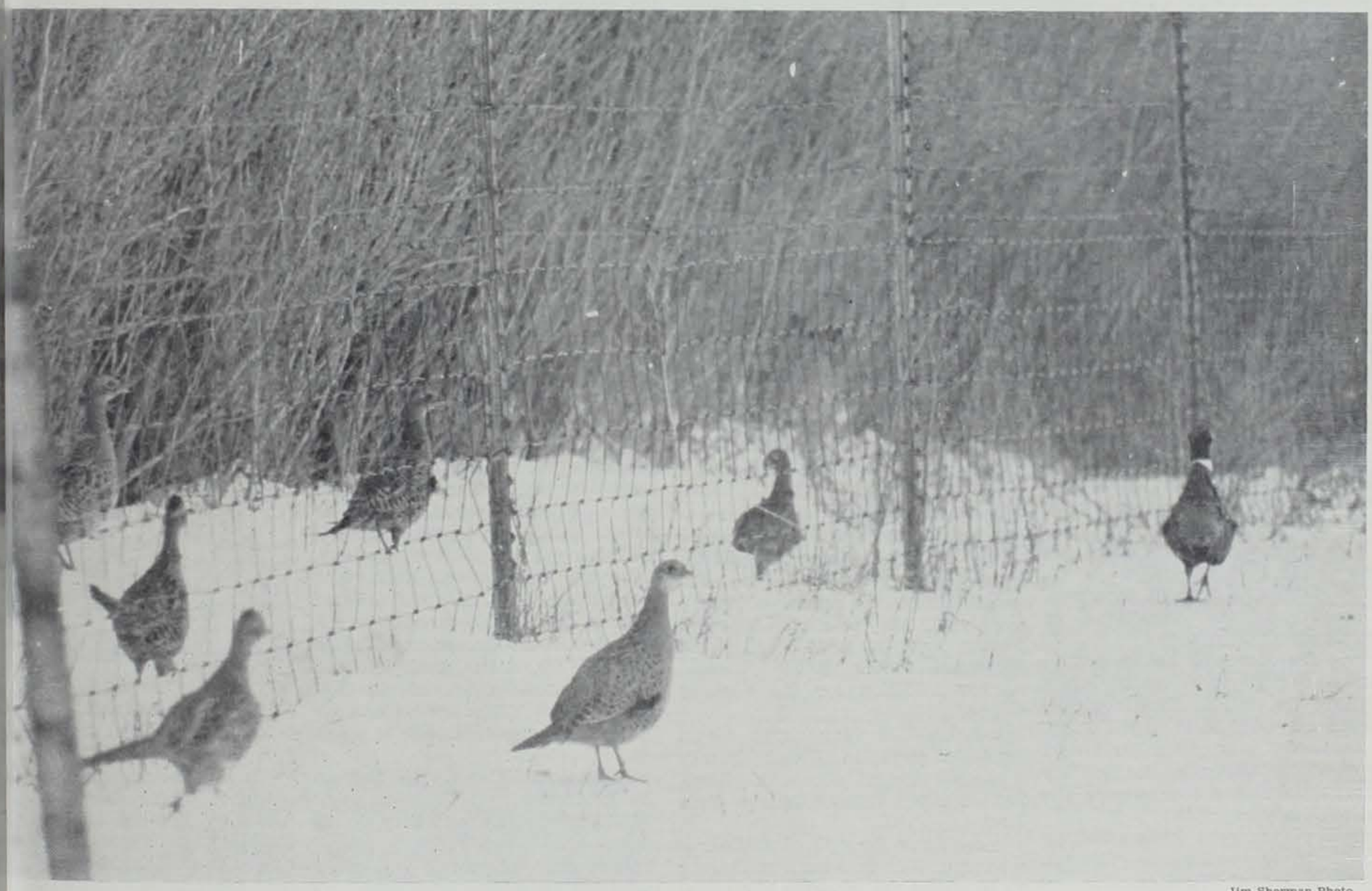


IOWA CONSERVATIONIST

Volume 21 April, 1962 Number 4

THE PROBLEM OF WILDLIFE COVER



Jim Sherman Photo.

Honeysuckle offers fine pheasant cover.

Denny Rehder

problem of adequate cover ldlife is one that becomes in- ngly important in these days ensive Iowa farming. With e available land being used e production of farm crops, 'e has to either adapt to the ing conditions or move to suitable areas. The changing use through the years has pronounced effect upon the)sition of our wildlife re- :s. The introduction of new s has made increasing de- ; upon those who are con- 1 with our wildlife and their 1 outdoor recreation.

problem of management has met in many different ways. At first it was thought that we could enact laws governing the harvest of wildlife resources, thereby promoting game abundance. This did not solve the problem, giving rise to the era of the game farm and fish hatchery. It was thought that artificial stocking would supplement our dwindling wildlife populations. Stocking has proved a useful tool, but it has evolved from indiscriminate, scattergun attempts to a more realistic approach that forms a part of our present program of habitat improvement or game management. First we provide the cover and food supply so that wildlife can develop naturally. Then in areas where the brood stock has been depleted we may carry on a small-scale stocking program.

Different species present different demands on the land. In the case of northern Iowa, which is our primary pheasant range, we find that nesting is our biggest problem. The hayfields that the pheasants like so well are death traps. It is ridiculous to expect a farmer to delay mowing his hayfield until after nesting season for hay must be made when the time is right. Because of this, it is not economically feasible for the farmer to ruin his hay crop out of deference to the nesting wildlife.

Using flushing bars serves no practical purpose except by slowing down the tractor to allow a little more escape time. Raising the cutter bar when a nest is seen only pinpoints the location for predators.

Surprising as it may seem, food is a minor problem in our primary pheasant range. Pheasant starvation is not substantial, according to studies in Iowa or other states where the pheasant is a primary game bird. Pheasants will burrow under deep snow for feed, and since these birds are found in our most fertile sections of the state, food is always present. The bulk of the pheasant deaths in the winter are due to natural causes.

Quail offer an entirely different picture. Southern Iowa, our best

(Continued on page 30)

Iowa Conservationist

Vol. 21 April, 1962 No. 4

Published monthly by the State Conservation Commission, East 7th and Court, Des Moines, Iowa. Address all mail (subscriptions, change of address, Form 3579, manuscripts, mail items) to street address above.

Subscription price: two years at $1.00

Second class postage paid at Des Moines, Iowa

CIRCULATION THIS ISSUE.....51,000

COMMISSION MINUTES

GENERAL

William Boswell, Conservation Officer of Reinbeck, Iowa, was approved as Administrative Assistant to the Director.

Approval was given for travel for one person to Denver to the North American Wildlife Conference.

One biologist was given approval for travel to the Midwest Pheasant Council at Fort Collins, Colorado, April, 1962.

Approval was given for a state car to travel to New Marsh Field, Ohio, to pick up Reeves Pheasants in early March.

Authorization was given for fisheries trucks to travel to Yankton, South Dakota; LaCrosse and Genoa, Wisconsin, and New London, Minnesota, as necessary to pick up fish.

Superintendent of Engineering was authorized to travel to St. Louis, Missouri, May 31 to attend a meeting of the Association of Conservation Engineers.

The Director was authorized to attend the Missouri Basin Inter-Agency Committee Meeting, Jefferson City, Missouri, April 25-26.

Authority was given for travel to Basset, Nebraska, to pick up Prairie Chickens for use in the research station.

One person was authorized to travel to a meeting in Chicago concerning boat regulations.

The resignation of Dale Andrews, Superintendent of Equipment and Purchasing, was accepted, effective March 31.

Four people were authorized to work at the Sports Show at LaCrosse, Wisconsin.

A motion was approved for a plaque to be placed in a state owned area as a memorial to Bruce Stiles, former Director of the Commission.

A report was given on planning for a statewide meeting of all conservation personnel to be held on March 15.

FISH AND GAME

A transfer of fisheries budget funds was approved for use on the Spirit Lake Hatchery at Orleans on Spirit Lake.

The Commission approved a rating list of 25 officer candidates for the fish and game positions.

COUNTY CONSERVATION

Boone County received approval for purchase of 113½ acres for $33,000 as the first acquisition for a large park to be called Don Williams Lake.

Cerro Gordo County received approval to acquire 20 acres at a total cost of $4,950 as an addition to Rock Falls Park.

Delaware County received approval for purchase of 18 acres adjacent to Lake O'Delhi at a cost of $1,000, plus one other adjacent acre which cost $100.

Delaware County also received approval for the purchase of three parcels of land totaling 6½ acres on the M and O Railroad right-of-way at a cost of $500, to be used for wildlife cover areas.

Floyd County received approval for the purchase of 10 acres in the northeast corner of the Idlewild Access Addition for the cost of $1,000.

Purchase of four acres for a roadside park in Floyd County was approved at a cost of $3,500, for the Floyd County Conservation Board.

Acquisition by gift of 6½ acres was approved in Franklin County to be called the Burkley Historical Area from Mr. and Mrs. Arthur J. Burkley.

Approval was given for the purchase of 13 acres at the cost of $1,075, to be used for a road right-of-way to the West Fork Access Area in Franklin County.

Ida County was given authority to develop a roadside park on 4½ acres of State Highway Commission land on Highway 20 near Galva, Iowa.

Marshall County received approval for a lease on one-half acre of land and a building for use as a shop and service center at a cost of $35 per month.

Story County received approval for options to purchase 15 parcels of land from six different farms involving 312 acres of land and a total cost of $144,950. This area is to be used for development of a major county park including an 83 acre artificial lake.

Pottawattamie County received approval for purchase of two areas totaling 97 acres for a multiple use county park. The areas include a 12 acre pond, and total cost was $21,540.

Clayton County was authorized to purchase 54½ acres of land at a cost of $3,500, or six acres needed for an access road at a cost of $700, if the first purchase is not successful, for use in connection with Volga Pine Park.

The following development plans were approved:

Buchanan County — Buffalo Creek Area.

Calhoun County—Hickory Grove Park.

Cherokee County—Meriden Roadside Park.

Cherokee County—Steineke-Little Sioux Area.

Grundy County—County-School Arboretum.

Iowa County—Iowa County Lake.

Pottawattamie County—Arrowhead Park.

Jackson County—Sabula Boat Landing.

Cerro Gordo County—Wilkinson Memorial Park.

Cerro Gordo County—Rockwell Park.

Palo Alto County received approval for management agreement for a 25 year period on the Lost Island Access Area now managed by the Conservation Commission.

The request to acquire 52½ acres for an artificial lake site in Linn County, called Clinton Township Lake, was not approved.

WATERS

A request for a construction permit for riprapping of 3,000 feet of shoreline on North Twin Lake in Calhoun County was approved.

A request for perpetual easement for maintenance in Louis County Drainage District No. 1 was approved.

The Superintendent of Water gave a report on an investigation of passenger capacities of house boats and pontoon boats.

PARKS

A development plan was approved for Carroll County for Swan Lake State Park.

A gift by the Madison County Historical Society of a plaque for the Millstone Monument to be constructed at Pammel State Park by the Commission, was accepted.

Planning for maintenance and construction of state park roads in 1962-1966 was approved by the Commission.

The development plan for Colt Springs State Park by the Cass County Conservation Board was accepted.

A report was given on the condition of the Commission's present airplane.

FORESTRY

A report was given on the forestry activities concerning acquisition of Federal Forest Lands in Iowa.

Planning for the prison labor camp in the Yellow River Forest Area.

A new forester is now located at Independence, Iowa.

THINGS YOU MAY NOT KNOW

A female fly can lay its first batch of eggs in less than a week after its birth.

The fact that the blood in their gills flows in one direction and the water in another enables fish to utilize the oxygen in water most efficiently.

Forty-one states have laws that give full or partial protection to hawks, owls and eagles.

During winter months the range of a wolverine may cover an area more than fifty miles in diameter.

Recent estimates say only about 1,000 pairs of bald eagles are left in the United States.

DOES THE MISSOURI RIVER HAVE RECREATIONAL VALUE?

Jim Sherman

Ten years ago the Missouri River was fluctuating violently in water level; at that time it was used only by duck hunters and commercial fishermen. The average citizen thought the river was mean, muddy, and dangerous. In 1953, the dams upriver became operative and the river level stabilized. Clear water started replacing the muddy flow of the river. Vegetation began to grow along the river and it became possible to install boat ramps and build access roads with the expectation that they would be reasonably permanent.

A survey made in the summer of 1960 indicated 1,600 boats were used between Hamburg and Sioux City. The average boater made sixteen trips on the Missouri River that season, traveling an average of thirty-four miles per trip. The average boater used 112 gallons of gasoline during July 1960 and the average trip lasted six and one-half hours. The boater survey reported that 39 per cent fished, 38 per cent swam, 74 per cent picnicked, 20 per cent camped and 44 per cent water skied on the Missouri River. During the fall of 1960 the survey recorded 118 duck blinds between Sioux City and Council Bluffs.

The Iowa Conservation Commission is striving to preserve some of the oxbow lakes along the river to provide additional lake-type fishing, swimming, boating, and camping areas.

Today we have active boat clubs located at Hamburg, Bartlett, Council Bluffs, Missouri Valley, Shenandoah, Onawa, Whiting, and Sioux City, who maintain their own private docks and picnic areas. Two commercial marinas at Council Bluffs and Whiting, plus two state-owned docks and auto parking areas west of Onawa, and one municipal dock on the Big Sioux River at Sioux City are now in use on the Iowa side of the river.

Commercially this means good business for people who sell boats, motors, gasoline, camping equipment and other recreation supplies. In the long run, recreational development of the Missouri River should be a great attraction for industry to locate in western Iowa. For the average citizen of Iowa it means a whole new recreational area close to home for the enjoyment of him and his family.

SPRING TROUT FISHING AND ARTIFICIAL BAIT

Denny Rehder

out can be caught on artificial in the spring! Even though people think that bait fishing e only way to catch early , there is much evidence to ontrary.

ere is a variety of fly and ing tackle that will catch trout. One of the chief things ep in mind is necessity for lures, long fine leaders, and veight tackle. This isn't the of year to "horse" a stream big lures and heavy tackle. natural food available to trout e spring is usually confined all insects.

the dry-fly fisherman, small es, size 16-20 in patterns of and black, are effective. They d be floated to the trout will be rising to feed on the insects on the surface of the .

mphs and sparsely dressed lies are effective at this time ear, because their natural erpart is present in the ms for most of the year even three years, depending on the of insect. Imitations of the forms will not be too ef- e since they are not present rly spring.

eamer flies and bucktails that te small fish can prove ef- e for early fishing. Spinning like the small metal wob- small spinner types, and small weighted lures or jigs ood for early fishing.

ner good artificial bait can be in the form of spinner-fly inations and the smallest of s.

st people use equipment that o heavy. Trout are normally ng on small food items and weight tackle is needed.

cept for the midges which draw trout to the surface to feed, most food comes to the trout an inch or two from the bottom in early spring. Consequently, the deeper you fish your lure this time of the year the more successful you will be.

Your "attractor" lures, such as small metal spoons, should also be fished deep to take advantage of the fact that trout are feeding near the bottom.

Methods for Spring Fishing

As we have already mentioned, your small dry flies representing midges are cast into the edge of the current and floated into the pool. You can't expect to fool a trout in the clear water during the spring, unless you take advantage of the turbulence where the current meets the quieter water of the pool. This turbulence will help conceal your line and leader. You must also keep hidden or you will spook the trout.

When fishing the midges, you will find several flies necessary since they are so small that every strike will necessitate drying the fly before it can be used again.

Nymphs should be fished on the bottom. If you can cast upstream and let the nymph tumble with the current into the pool, you will be imitating the natural action of the bait. You should keep the slack out of your line because the head of the pool is one of the chief feeding areas for trout and you may get a strike.

After the fly enters the pool and sinks to the bottom it should be retrieved a few inches at a time to simulate a natural drift through the pool. This natural drift will produce many strikes.

One of the big problems for the novice is learning to tell when he has a strike. If the line stops during the drift, the rod tip should be raised even though it may be a rock, stick, or fish slowing it up. If you wait until the jerk reaches you, you'll probably lose the fish. It sometimes helps to increase the visibility of your line by tying a small piece of white yarn where the line and leader join. This piece of yarn will serve the same purpose as a bobber when bait fishing.

Jim Sherman Photo.

On light tackle with artificial bait, a rainbow trout like this will give you a tussle.

When conditions demand that you fish downstream with a wet fly or nymph you still try to get on the bottom. In fast or deep water you may need weighted nymphs. On your retrieve you should continue it into the riffle at the head of the pool since this is where the trout will be feeding.

Streamer flies or bucktails represent large insects or small fish that can readily move about in the current. You must fish these, imparting to them some action. Fish them through the pool from various positions.

Streamers are most effective when they are fished across the stream, allowed to drift with some action, and retrieved upstream with action. Quite often the effectiveness of streamers and bucktails is increased by riffling the fly. Riffling is done by throwing a half-hitch of your line over the head of the fly to change its pitch as it moves through the water. When the current is too slow for good drifts, you should fish the pool from various positions.

Small spinning lures or the "attractor" type are usually most effective in fast water. To get the action from your lure, you must cast downstream and work the lure against the current.

Wobblers in the tiny fly rod size are good in pools and slow water. An erratic retrieve will often produce trout. You should use an erratic retrieve and stop to let the lure flutter to the bottom. Small plugs should be used also. Dark-colored plugs are best for spring fishing.

The biggest problem for the angler fishing artificial bait is the selection of tiny lures and lightweight tackle. Not only will you increase your chances of catching fish, but you will be approaching this sport of trout fishing from a gentleman's standpoint. Trout fishing is a sport that should not be given to "horsing" or "meat fishing." Trout fishing from the sportman's view is a highly skilled, technical craft that offers the ultimate in outdoor recreation.

Jim Sherman Photo.

east Iowa offers some wonderful scenery as well as fine early spring trout fishing.

SPRINGTIME—A RE-AWAKENING

Carol Buckmann

To walk through woods, fields or over hillsides in early spring and come across a group of wild flowers nodding in the breeze is like meeting old friends who have been away for a year. A little knowledge of common spring flowers brings pleasure and intrigue by their beauty and spring freshness.

Three petals, three sepals and three leaves adds up to a delicate dwarf trillium, the first wildflower to peak its head above the ground in an early spring greeting. Also known as snow trillium, this white flower is frequently found in southern exposures of steep wooded hillsides where the snow melts first. Trillium is often caught in late snow storms or blossoms while snow partially covers the ground.

Good places to look for trillium are the following state parks: Dolliver, Ledges, Backbone, Pikes Peak and Wild Cat Den. In addition, good places to look for the following woodland flowers are Lacey-Keosauqua, Springbrook, Maquoketa Caves, Palisades-Kepler, MacBride, Stone and Waubonsie State Parks.

Another early spring woodland beauty, the hepatica or liverwort, makes it debut with the first warm rays of sunlight in any wooded area. Hastening to bloom before the leaves appear on woodland trees, the hepatica hides in the brown leaves and debris. This blue or pink-white flower has round kidney-shaped leaves with three lobes bearing hairy stems.

Joining the trillium and hepatica in late March are the white bloodroots along the edges of thickets and open woods. The reddish-orange juice in the stems and roots was used as medicine and dye by the Indians. Basal leaves coil around the flowers and spear their way through dead leaves on the woodland floor before they unwrap their white, single flower.

Walking through the shade or edges of woods one comes across several tiny pairs of what resembles baggy pants hanging on a slender clothes line. The "Dutchman's breeches" are fragrant, drooping flowers on a tuft of fern-like foliage. The "breeches" are filled with nectar and wave in the breeze from April to June.

While many spring flowers hide from the sun in shaded areas, the spring beauty must have sunlight. This demure yet colorful wildflower is low-growing and thrives at the edge of the woods in April. A small, deeply buried tuber gives rise to a pair of narrow, glass-like leaves and a branching flower cluster.

March to May the rue anemone or wind flower's white blossoms dot the shaded areas. Ancient Greeks believed the anemone needed the blessing of the wind gods before it could bloom.

A familiar wild beauty nodding in the early spring breeze also from March to May is the dog tooth violet, a common member of the lily family. Also known as trout lily, yellow adders tongue and fawn lily, dog tooth violets are low with little or no stem. Moist woods and meadows, creek bottoms and along rivers are likely habitats. The narrow pointed leaves are mottled with brown and seem to spring directly from the earth.

Watch where you step, for the stemless wild ginger might be underfoot along rivers and valleys late in March to May. As its name suggests, this plant has ginger flavor in its rootstalk which was once used as a remedy for whooping cough and a spice flavor. The soft kidney-shaped leaf carries a long stem from the base of the plant. Only a sharp eye can detect the maroon flowers hidden within.

Other woodland early spring flowers common from April to June include the buttercups, a symbol of golden days of summer to follow. They are found in moist, damp places along any river bottom. Violets in the cool shadows provide a carpet to the woodland. In sunny areas columbine blossoms sway gently, their highly scented fragrance engulfing the hillsides. Look long and hard at the petals; they resemble bright-winged birds for which they were named.

In the southeast one-third of the state, hickory candles enclosing new hickory leaves light the woodlands with their deep rose-pink flowers while bluebells or Virginia cowslips ring in spring with their blue petals matching the May sky.

A long-time favorite of the woodlands, the Jack in the Pulpit, begins its deep wood flower sermon in May, finishing in June. So named from the fact that its spathe resembles early period pulpits which had hoods over them, Jack is in the center under the pale green hood.

Although the May apple doesn't have a hood to protect its "Jack" against rain and sun, it does have something just as effective — an umbrella over the flower is a single shield growing above the white blossom. In colonies in wet patches of meadows and open stretches of woods, it blooms from April to June. The "apple" is a large, yellow, juicy strawberry-tasting berry, edible when ripe.

Walking from the woodlands one sees the hillsides fronted by the shad bush with its incandescent white flowers. Along high clay banks, streams or at the Ledges State Park on cliffs overlooking the valley, at Springbrook Park or Dolliver Park are good places to see shad bush. One of the earliest blooming shrubs, it comes before the leaves and after the hepatica. These bushes bloom when the gizzard shad are making their spring run early in April.

Jim Sherman Photo

Hepatica.

About a week or two after shad bush, one sees redbud trees blooming at the edge of the woods in Waubonsie, Lacey-Keosauqua and Wapello State Parks. Impatient to bring color to the hillsides, it blooms on a leafless stem rendering a bright purple contrast to the blue spring sky.

Ancients heralded the blossoming hawthorn bush as the first day of May. Although hawthorn flowers appear around the last of May in Iowa, they do indicate spring is here in a large percentage of state parks.

The first prairie wildflower making its appearance from April to June is the pasque flower, a silky-haired plant. Its hairy, solitary flowers reach a breadth of over an inch. From a distance, the blue-gray blossoms on hairy stems looked like prairie smoke to the pioneers and led to the nickname of "prairie smoke." This flower is common in prairie areas and the Great Lakes region.

At one time marsh marigolds were among our common marsh and wet land inhabitants. Due to careless flower seeking, now only a few remain along the northeast springs. Another of our beautiful specimens almost completely destroyed by ruthless digging and picking is the lady's slipper or Indian moccasin of deep forest shade in May.

But most of Iowa's wildflowers come from hardy pioneer stock such as the wild geranium common in woodland areas. This frail looking but sturdy pale-purple flower covers the woods and hillsides around the last week of May.

Common to the slopes and prairies is the prairie phlox, a tufted plant with slightly hairy, nearly erect stems. The rose-pink to violet flowers are seen in abundance from May to July.

If you walk through the woods filling your lungs with the fresh spring air but suddenly encounter a penetrating odor similar to friend skunk, look down and you may find you've stepped on a skunk cabbage leaf. This odor is only emitted if the stems or leaves are crushed. Skunk cabbage often forces the pointed tips of the cone-shaped spathes through partly frozen soil before any other signs of spring enliven the woods. Skunk cabbage populates depressions and hollows in fields and open woods where there is an abundance of soil water.

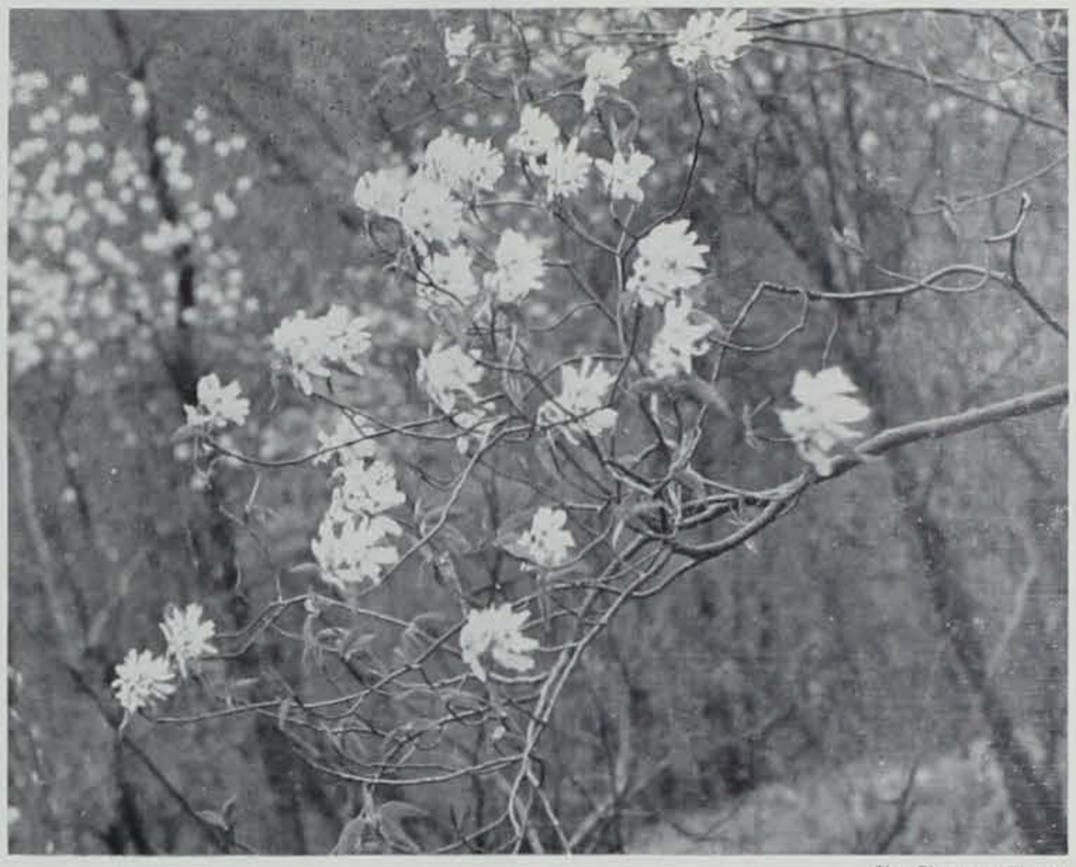
What better way could summer be signified then by the coming of the state flower, the wild rose, to fields, woodlands, roadsides and out of the way places in early June?

The dates of these flowers are subject to change according to the weather conditions of the seasons and parts of the state. These dates are in general for central Iowa and differ slightly from south to north.

Adult trumpeter swans are often twice as large as whistler swans. Trumpeters often weigh 35 pounds, whistlers seldom weigh 18 pounds.

Jim Sherman Photo.

Dog's-Tooth Violet.



Jim Sherman Photo.

Shadbush.

George Tovey Photo.

Dutchman's Breeches.

Jim Sherman Photo.

Pasque Flower.

Jim Sherman Photo.

Phlox.

Jim Sherman Photo.

Trillium.

George Tovey Photo.

Bloodroot.

OUR ROLE IN WILDLIFE COVER

Denny Rehder

We can talk for hours about the need for cover, but it is the farmer or landowner who must govern the use of his land. Farming is a business and the farmer must think in terms of what programs are economically feasible and sound in terms of proper land management.

Probably the biggest reason for most farmers to plant wildlife cover is the enjoyment they get out of the wildlife they can attract. Although not as highly publicized, another reason for planting cover is the actual benefits accruing to the farmer for his efforts. Studies have shown that when a sod fencerow and a shrub fencerow are compared mile for mile you will find in the sod fencerow: 500 beneficial ladybird beetles; 79,000 insects injurious to farm crops; 1.5 nesting birds; 84 harmful small animals; and 8 beneficial small animals. By contrast, the shrub fence row will harbor 20,000 beneficial ladybird beetles; 54,000 insects injurious to farm crops; 21 nesting birds; 21 harmful small animals; and 28 beneficial small animals. In the farmer's fight for pest control, plantings such as living fences offer very real economic returns.

Jim Sherman Photo.

Quail need grass for nesting, isolated food patches, and brushy areas for escape cover.

What Is Being Done?

In northern Iowa, shelterbelts and windbreaks are useful to both the farmer and wildlife. They cut wind erosion in the spring and catch snow for future moisture in the winter. Windbreaks and shelterbelts have been used farther west where wind erosion is such a problem. There is a line of these belts running from the Dakotas to Texas.

The Commission in its promotion of shelterbelts has gone into northern Iowa and planted such belts on private land to demonstrate their effectiveness. These belts are important to the pheasant and rabbit populations in this part of the state.

Our game management areas are primarily for wildlife, but they do demonstrate the best utilization of the land in an ideal situation. On these areas you will find farming to an extent, but the primary emphasis is on game production, not crop production.

There is a Farm-Game Habitat program in which the Commission will go to a farm with an odd area not valuable to farm production and develop it for wildlife. These agreements usually run for 10 years. The Commission agrees to provide for surveys and measurements of the area; to furnish seeds, vines, shrubs, and trees needed on the area and the labor to plant it; to furnish fence, posts, gates, and signs needed, and install them.

In turn the farmer agrees to plant any replacement stock needed, to be furnished by the Commission; to maintain the area and care for its fences and signs; to take reasonable care to prevent damage by fire, or grazing by his domestic stock; to mow only after July 1 each year except for local weed control; to allow hunting by permission.

The Commission will also help in predator control. Since most farms have these odd areas, the program offers an excellent opportunity for participation in the management of our wildlife resources.

Farmer-Sportsman Cooperative

The Farmer-Sportsman Cooperative program established in 1948 has now completed nearly 3,000 projects in 89 counties. The program is set up to enable sportsmen clubs to contact farmers about setting aside odd lots and the like for the benefit of wildlife. The whole operation is tied very closely to the local Conservation Officer and the local soil conservation district. Farms approved for FSC development must have a soil conservation plan which will serve as a framework for the operation of the FSC program. The sponsoring club pays for the planting, fencing, and general development of the area. Upon completion a Conservation Officer will check the area and make application to the Commission for reimbursement to the club of one-half the cost of the project. A farmer's obligation is confined to the upkeep of the area.

We've mentioned odd lots and shelterbelts, both of which offer fine cover possibilities. Roadsides and fencerows are becoming very important with the advent of intensive row crop farming. Of prime importance to pheasants in the winter are farm groves with honeysuckle plantings. If they are adjacent to feedlots—so much the better. Honeysuckle is a good odd lot planting also, providing food and cover. Other plantings include conifers, sweet clover, osage orange, and, in southern Iowa, multiflora rose. These plantings can provide food, nesting cover, escape cover, and winter cover.

Other Beneficial Programs

The diverted acres program is important to wildlife especially during the nesting season. Since the program went into effect, the Hungarian Partridge in northwest Iowa has increased in range and population. Mowing these acres with the exception of localized weed control is not only harmful to nesting wildlife, but serves no useful purpose to the farmer.

The interest and cooperation exhibited by the State Highway Commission and several counties in delaying their roadside mowing programs until after the nesting season has been an important factor in wildlife production.

Harmful Practices

Burning over the land is a fallacy in good farm management that is fortunately on the decline. Burning merely warms the ground in the spring, promoting faster plant growth. At the same time it robs the soil of nitrogen and cuts grass production in half.

Spraying is used on most farms. Uncontrolled spraying is detrimental to wildlife, while spot spraying is less dangerous, m economical, and does the job j as effectively.

COVER—

(Continued from page 25)

quail country, was once predom nately grassland used for catt feeding. During World War I at tempts were made to farm th land. Extensive erosion left dee gullies which soon grew up int brushy cover ideally suited f quail. Until this time the qua were not too plentiful, but the ad vent of this brushy cover provide the impetus for a rising populatio The grass had always provide good nesting cover, but food an escape cover was needed. Aft erosion set in, there were ma small, odd areas in crops tha were close to grass and cover Consequently the numbers of qua increased. Now, however, there a move back to the grassland farming, with many of the gulli being filled. The quail are facin a problem in the future if th trend should return this area t grassland farming.

While food is a minor pheasa problem, it is a critical one fo quail. Pheasants can last longe without food and even eat food that a quail cannot subsist on.

Although we tend to take ou rabbits for granted, they too, fa problems with cover. A rabb needs cover to escape from pred tors. In bygone days a big fact was the existence of many brus piles in farm woodlots. With ele tricity, fuel oil, or gas replacin the wood stove; and steel fenc posts replacing the wooden post farm woodlot activity has de clined. Rabbits, then, need gra for nesting; escape cover in th form of brushpiles, or shrubber and ragweed, ironweed, and brus piles for winter cover.

The problem of wildlife cover is complex one. We must realize th wildlife is a direct product of ha itat, and as the habitat change the species present will chan with it. The world of nature is complex community of interd pendence. In attempting to chan this community we must reali as illustrated by the quail in sout ern Iowa, that we will change whole structure.

Jim Sherman Ph

The decline in the activity of the f woodlot has taken much rabbit cover.

HISTORICALLY SPEAKING

catine, Button Capital of the World (In the Gay Nineties)

Stan Widney

tton, button, who's got the ?" must have been the most r game in Muscatine, Iowa, "Gay Nineties" when there as many as 30 button fac- in that city alone.

tarted about 1889 when a n button-cutter named J. F. le went to Rock Island, Illi- o investigate the reports of l beds in the Mississippi They turned out to be abundant near Muscatine so ilt the first button cutting there.

t was the beginning of what equalled the California rush. "Clammers," as the fishermen were called, made ich as $30 a week, good in those days, and they to Muscatine in droves.

ming was an easy business rt. All you needed was a Boat," a flat-bottomed rig square of bow and stern, rake, called a "crowfoot ," which consisted of a 6- ron rod with four-pronged attached about six inches The 4-inch hooks were fas- to the bar in strings of About 39 hooks were used e dredge was dragged up wn through the mussel bed ng rope. Two of these rakes round $2.00, the boat from $10. As many as sixty good s have been known to be at one time on 39 hooks.

next step was odorous to e least. Anyone living in cinity of the "cooking out" of the clammers must have for an off-shore breeze con- y. The mussels were boiled teen minutes in huge tanks them and make them easier to extract from the shell. The shells were sold to the button factories immediately at around $50 a ton.

"Pollywogging" was another form of clam fishing, most popular among young boys. The youths would dive to the bottom of the river and bring up shells in their hands or dig in the sand for them on the river banks. They sold the shells but the big thrill of "pollywogging" came from finding a pearl. Freshwater pearls sometimes sold for several hundred dollars.

The "boom" lasted only ten years. By 1900 the button market was overstocked and the mussel beds had almost petered out. The fact that it took as long as ten years to grow mussels to a salable size didn't help the situation although much time was spent in the effort to produce them by artificial propagation. Erosion, siltation and pollution also played a big part, and the button tycoons of Muscatine, because of this, and their number, were in the red.

They blamed this in part on politics. One Muscatine manufacturer had this to say in a local paper: "Nothing would blight the button business more quickly and effectively than the ascendency to power of the Democrats. In fact . . . if Bryan should be elected this fall, everything in our factories would drop 20 per cent that minute. We could not help ourselves."

Residents of Lansing will easily recall the button manufacturer who, in the 1930's and '40's, hired local housewives to sew his button output on sales cards. At that time Lansing, rather than Muscatine, was called the "Button Capital of the World." Buttons are still manufactured there but most of the shell is imported.

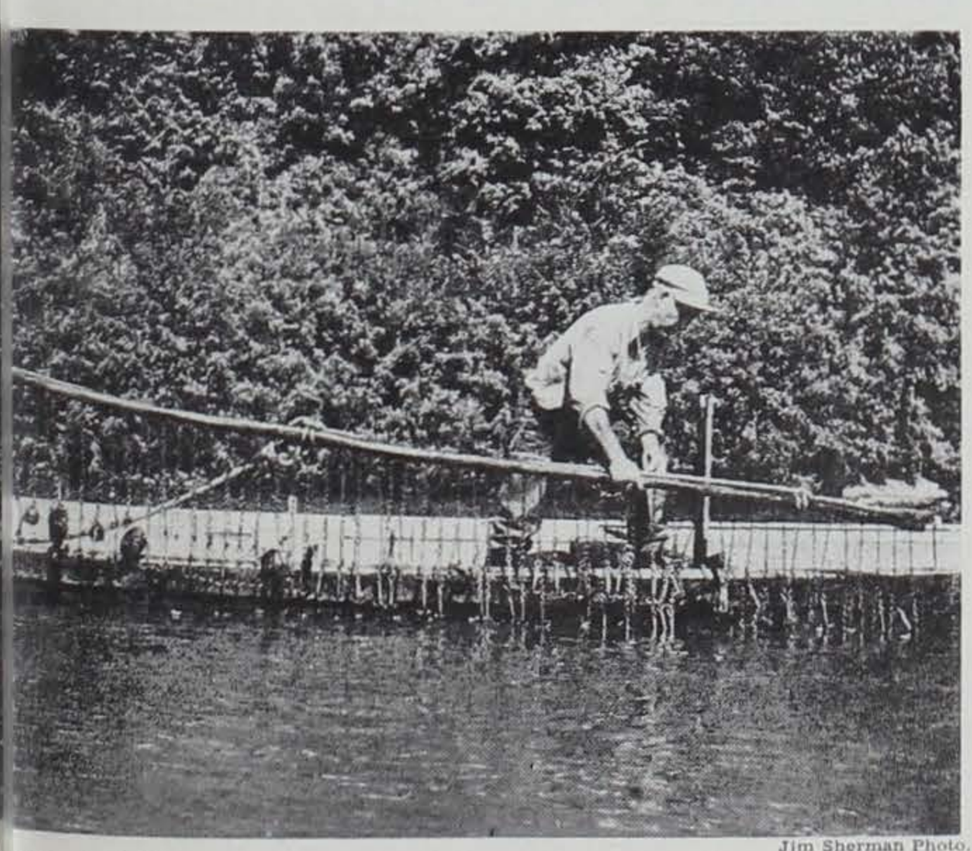
The Mississippi, Des Moines, Shellrock, Cedar, Wapsipinicon, and other Iowa rivers continue to produce mussels. The State Conservation Commission licenses clammers and says that manufacturers of pearl buttons or of fish bait may possess mussels which have been lawfully taken. In fact, regulations concerning mussels occupy two full pages of the Conservation Commission's official code book and all clammers should consult their local conservation officer before going into the business. There's not much competition though. Only five licenses were sold in 1961.

So the business of clamming and the manufacture of pearl buttons continues, zippers and plastic imitations notwithstanding.

The baby blue whale doubles its birth length of 24 feet in seven months.

Jim Sherman Photo.

An outdoor laboratory, headed by trained personnel, affords Iowa teachers a chance to learn conservation first-hand. The camp offers teachers credits toward certification.



Jim Sherman Photo.

d hand at clamming, Joe Martelle of Harpers Ferry checks his catch of mussels.

CONSERVATION CAMP

Carol Buckmann

With blue sky and fleecy clouds for a roof, a classroom filled by the great outdoors with timbered hills, a blue lake, prairie carpets and wild flowers and birds, Teachers' Conservation Camp at Springbrook State Park prepares to open its doors.

Every summer for the past 12 years, teachers of all ages have been "learning by doing" at this remarkable school using nature as a textbook and conservation as its aim.

They gain a lasting appreciation of nature and learn ways of developing these attitudes and understandings within their students. They also earn graduate or undergraduate credit. Credit from the two courses offered during the three three-week courses are acceptable as natural science requirements for certification.

This outdoor laboratory, sponsored by the Department of Public Instruction, the State Conservation Commission and the State College of Iowa, is taught by experts trained in the field of conservation.

There are facilities to adequately take care of 50 teachers each session at this lovely park seven miles from Guthrie Center.

Teachers must know how to teach conservation, consequently, stress is placed upon curriculum development, conservation materials that are usable in the classroom, audio-visual aids, use of resource materials, simple demonstrations and experiments that can be performed by youngsters.

During one three-week course, students travel approximately 1,000 miles to various areas for a view of conservation in action. Much of the work is in the field and a bus called the "Green Hornet" will take you within fairly short walking distance of the points of interest.

Students stay in the group camp at Springbrook State Park and have excellent meals with no KP duty. Visitors are always welcome at camp but facilities are not available to permit students to have their families with them throughout a course.

The major fields emphasized in Biology 104 are soil nutrients, wildlife and the balance in nature. In Biology 105, rocks and minerals, soil, water, and forest resources are stressed.

Biology 105, Iowa Conservation Problems A, is taught during the first session, June 10 through June 30. Second session, Biology 104, Iowa Conservation Problems B, is taught from July 1 to July 21. The third session is a repeat of Biology 105, from July 22 to August 11.

Tuition for undergraduates is $42. Industrial arts fee $1.50, room $3 and board $58.14, bringing the total cost to $104.64 for one three-week course. For graduates,

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THE NORTHERN HARDWOODS AND BUR OAK

John Stokes
Assistant State Forester

This article will be the last of three articles dealing with Iowa's four major forest types.

In this issue we will discuss the bur oak and northern hardwood forest types. The northern hardwood timber type contains Iowa's best quality stands of trees.

Harvesting the timber crop in northeast Iowa; products from this area include veneer logs, lumber, railroad ties, pulpwood, and specialty products like maple syrup and candy.

NORTHERN HARDWOODS

In the heavily forested hills of northeastern Iowa are remnants of the northern hardwood forest type. The chief species of this type are basswood, sugar maple (often called hard maple) and northern red oak. Also found in this association are black ash, cherry, and aspen. Aspen and birch often occur in small acreages and this association is in some cases classed as a separate forest type. It does not occur in enough counties to be commercially important as a source of raw material for wood using industries. The northern hardwood type makes up only about 3 per cent of Iowa's forest area. However, it contains some of the most valuable forest stands in the state. There are 78,000 acres of timberland in the northern forest type and 66,000 acres occur in the northeastern part of Iowa. Counties in this part of the state range from 13 to 32 per cent forest cover. Products from timberlands in this part of Iowa include: veneer logs, lumber, railroad ties, pulpwood and speciality products such as maple syrup and candy. About one-half of the timber cut in Iowa has been coming from forests in the northeastern section of the state.

Several stand studies show that growth rates increase rapidly as management is continued. In no other part of the state have past fires caused more damage to valuable timber stands than in northeast Iowa. Happily, in the last ten years the situation has improved to where fires are a rare occurrence. The present growing timber stands are showing better quality due to the absence of forest fires.

BUR OAK

The bur oak type is fairly common in western Iowa, constituting 21 per cent of the forest cover in the prairie area. Bur oak is well adapted to extremes of drought and temperature; it frequently occurs in pure stands and is increasing along the Missouri River Bluffs. Bur oak usually grows in relatively open stands so that the volume, quality, and growth per acre are very low. Usually stands are small in acreage and this probably accounts for the fact that western Iowa contributed only about 10 per cent of the timber cut in the state. Market outlets have not developed in western Iowa, except for bottomland species, as fast as in other parts of the state.

Perhaps the primary value of bur oak timber stands is in soil and water conservation. Trees provide desirable watershed area cover in many counties in western Iowa.

A recent CONSERVATIONIST article dealt with experimental plantings of evergreen species in western Iowa. This experimental planting will be continued and results reported in future articles.

In summarizing Iowa forest outlook, much remains to be done in putting timber under management. In the last ten years additional wood-using industries have located in the state, helping the marketing possibilities for the eastern part of Iowa. Continuous research is being carried on in order to find additional uses for all species of trees.

The Conservation Commission now has eight district foresters located over the state to assist landowners in timber management and marketing problems. District foresters are located at Adel, Anamosa, Chariton, Denison, Fairfield, McGregor, Muscatine, and Independence.

The northern hardwood type makes up only three percent of Iowa's forest area. Containing some of our most valuable forest stands, it contributes half our timber production.

GET THAT NEW LICENSE!

It's time to go fishing! After a long, dreary winter we all are anxious to head for the water and wet a line. Be sure your tackle is shipshape and ready for a summer's use, and don't forget your trout stamp and your new fishing license. Better yet, buy a combination license and be ready for a full year of hunting and fishing enjoyment.

Marten dens are normally in a tree, in a convenient cavity, though dens in the ground have been reported.

The black-footed ferret is one of the rarest North American mammals.

A MOST SUCCESSFUL DEER SEASON

Iowa deer hunters broke all re ords during the 1961 deer seas A total of 5,367 deer were legall harvested, with permit gun hun ers accounting for 4,033 deer, bo hunters 367, and unlicensed farm ers and landowners 967.

Gun permit hunters had a hunt success ratio of 51.6 per cent which is very good success for de hunting in midwestern agricul tural areas such as Iowa. The gu hunters hunted a total of 119,1 hours, or an average of 29.5 hour for each deer bagged. Deer were observed at the rate of about on deer per two hours of hunting an the average gun hunter reported sighted 15 deer.

Bow permit hunters recorded a astounding 17.1 per cent hunt success ratio while bagging 3 deer. Iowa bow hunters have ha an enviable record for the pa several years and their 1961 hun ing success will undoubtedly ran very high nationally. The bo hunters spent a total of 103,8 hours hunting their game, or a average of 283 hours of recreati for each deer reduced to posse sion. Deer were observed at th rate of about one deer for eac three hours of hunting, with th average bow hunter sighting abo 15 deer during the season.

A more complete analysis w be given at a later date, but an analysis will reveal one thing the 1961 Iowa deer season w most successful!

CONSERVATION CAMP—

(Continued from page 31)

the fee is $110.64 total. In th case, tuition is $48, industrial ar fee $1.50, room $3 and boa $58.14.

Sportsmen groups, Soil Conse vation Service Offices, and oth groups throughout the state ha been donating scholarships of va ing amounts, usually between $ and $60 to local teachers to faci tate their attendance to the Iow Teachers' Conservation Camp. O casionally, a local group is not ab to find a teacher in the communi who is able to attend camp a the group turns the amount ov to the camp with the understan ing a teacher elsewhere could awarded the scholarship.

You may obtain information scholarships from your local S Conservation Service Office, sport men's clubs, conservation officer by writing Ben Clausen, Direct Conservation Camp, State Colle of Iowa, Cedar Falls, Iowa. you can write to the State Conse vation Commission, Public Re tions Section, East 7th and Cou Des Moines 8, Iowa.

Reservations and further infor mation regarding the Teache Conservation Camp are availa through Ben Clausen, Direct I.T.C.C., Science Department, St College of Iowa, Cedar Falls, Iow